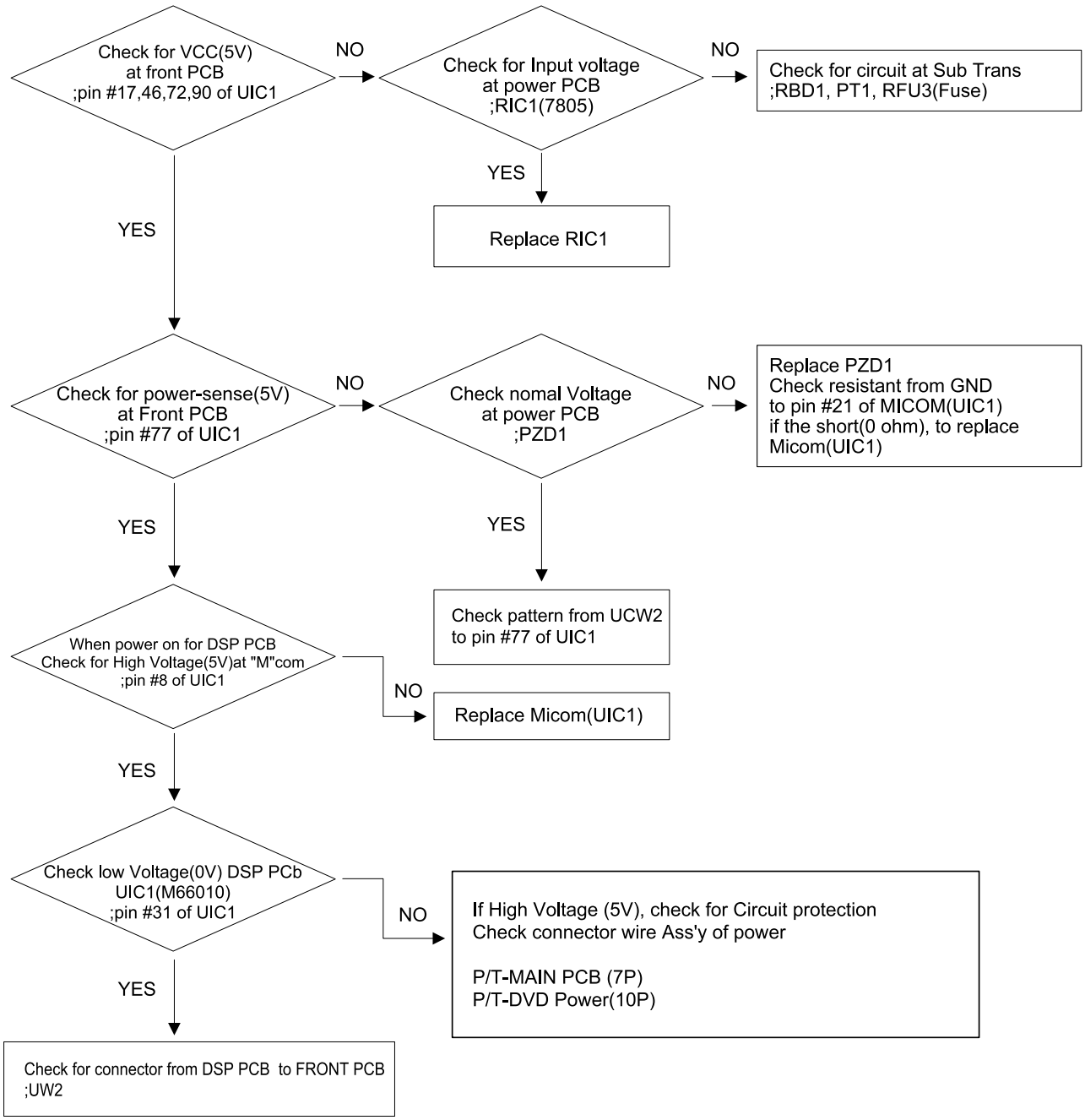
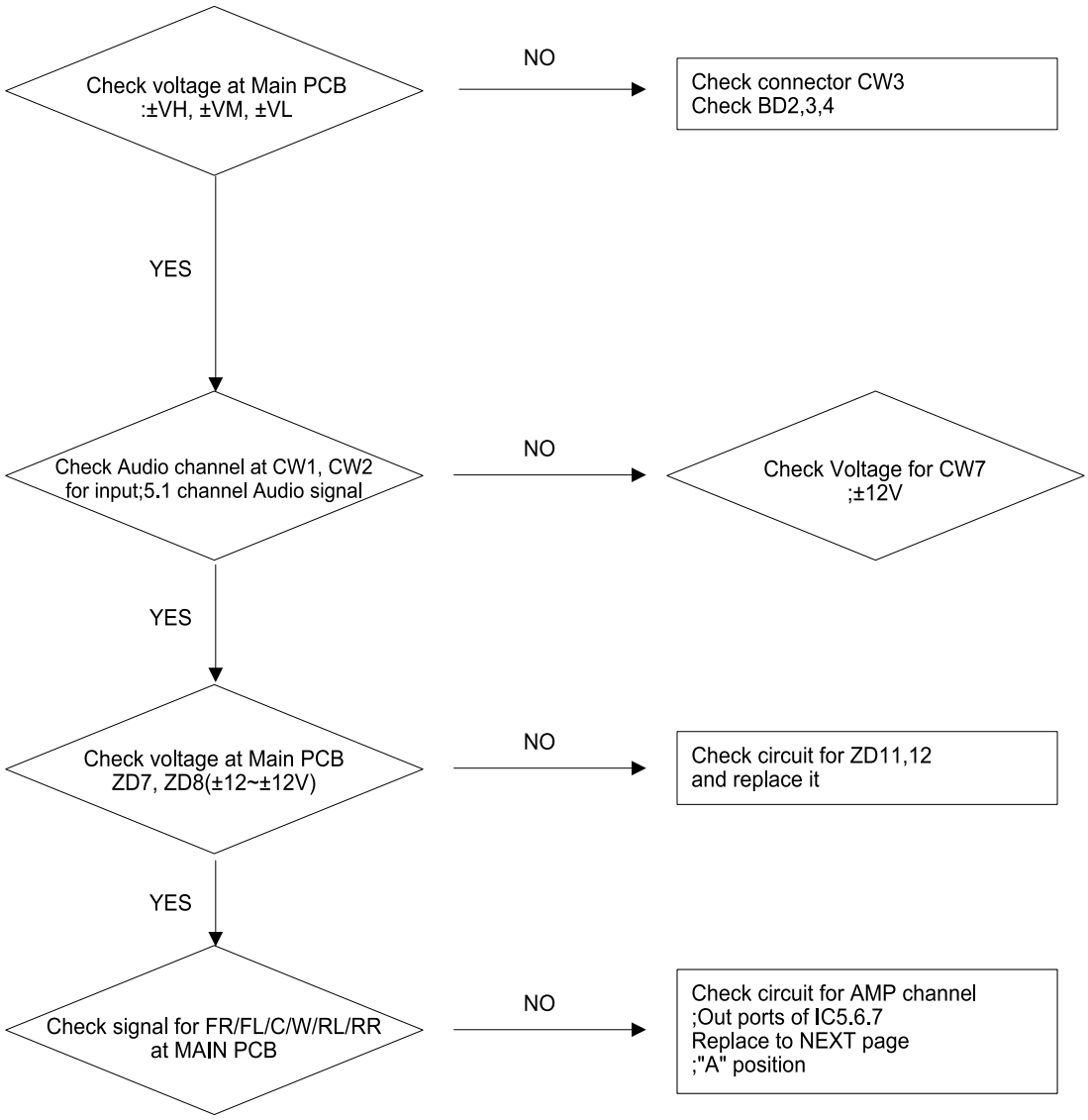
9. Troubleshooting

9-1 Main

1.POWER

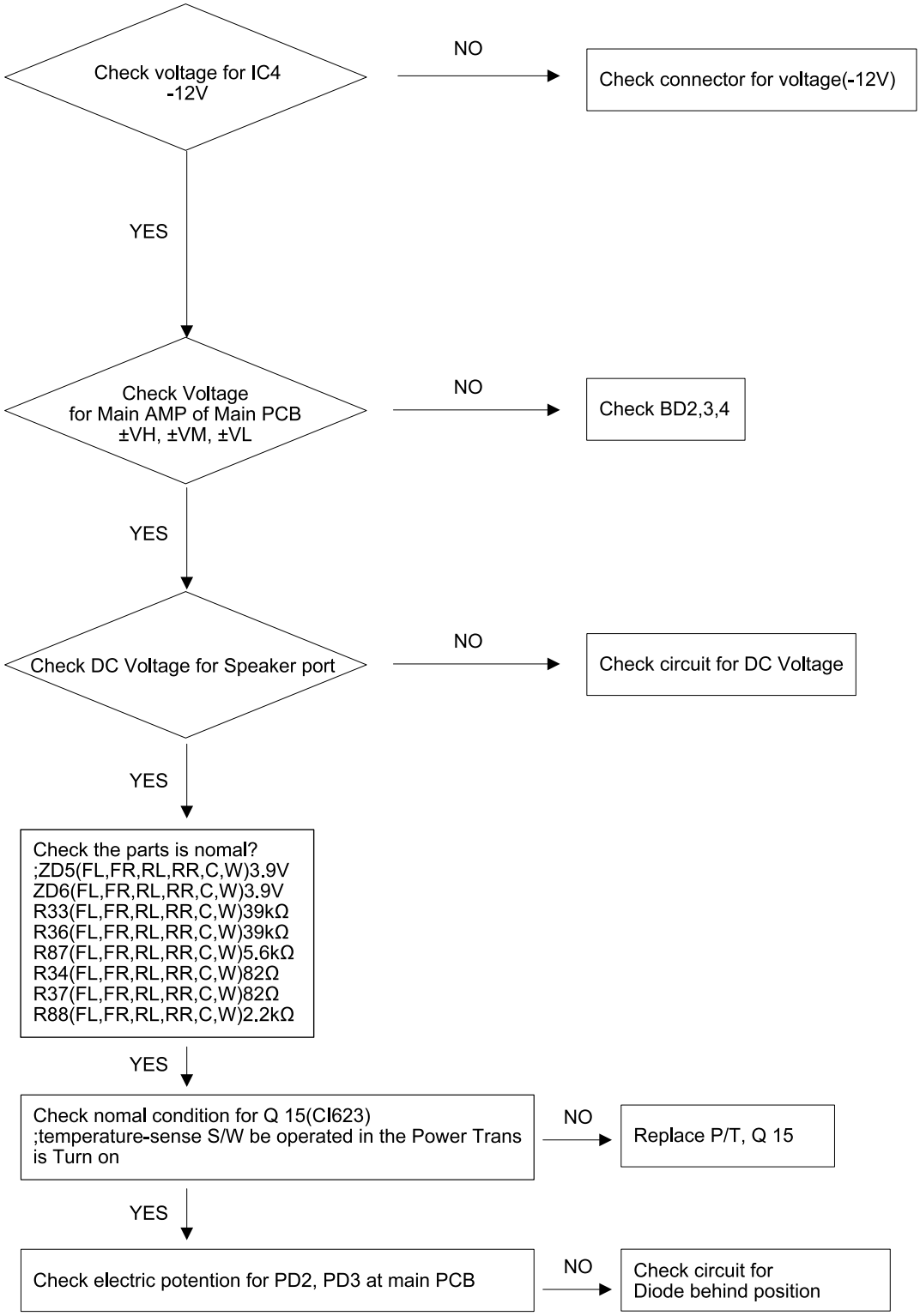


2.OUTPUT

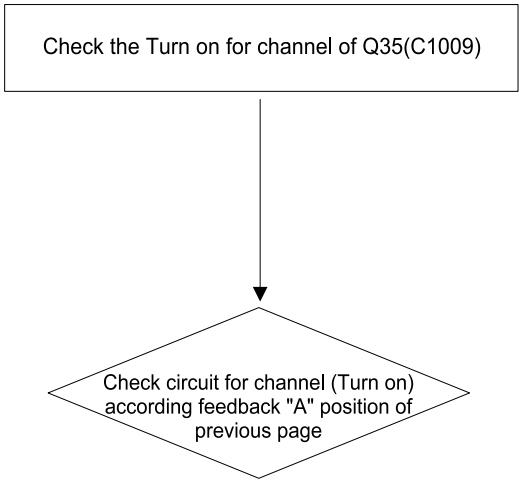

Check voltage at Main PCB
:±VH, ±VM, ±VL
NO
Check connector CW3
Check BD2,3,4
YES
Check Audio channel at CW1, CW2
for input;5.1 channel Audio signal
NO
Check Voltage for CW7
;±12V
YES
Check voltage at Main PCB
ZD7, ZD8(±12~±12V)
NO
Check circuit for ZD11,12
and replace it
YES
Check signal for FR/FL/C/W/RL/RR
at MAIN PCB
NO
Check circuit for AMP channel
;Out ports of IC5.6.7
Replace to NEXT page
;"A" position

3. Protection(When High Voltage at Protection port)

3-1 In this case “LOW” for, Base port of Q 12(R2003 TR)at MAIN PCB



3-2 In this case “LOW” for Base of Q 13(A733)at Main PCB


Check the Turn on for channel of Q35(C1009)
Check circuit for channel (Turn on) according feedback "A" position of previous page

3-3 Check the Connector Wire Ass’y Connection of each PCB

;DVD MECHA-Main PCB (8P, PW4)
;POWER TRANS-Main PCB (CW3)
;POWER TRANS-Main PCB (PW2)
;POWER TRANS-Main PCB (PW1)

1. Initial operation after power ON

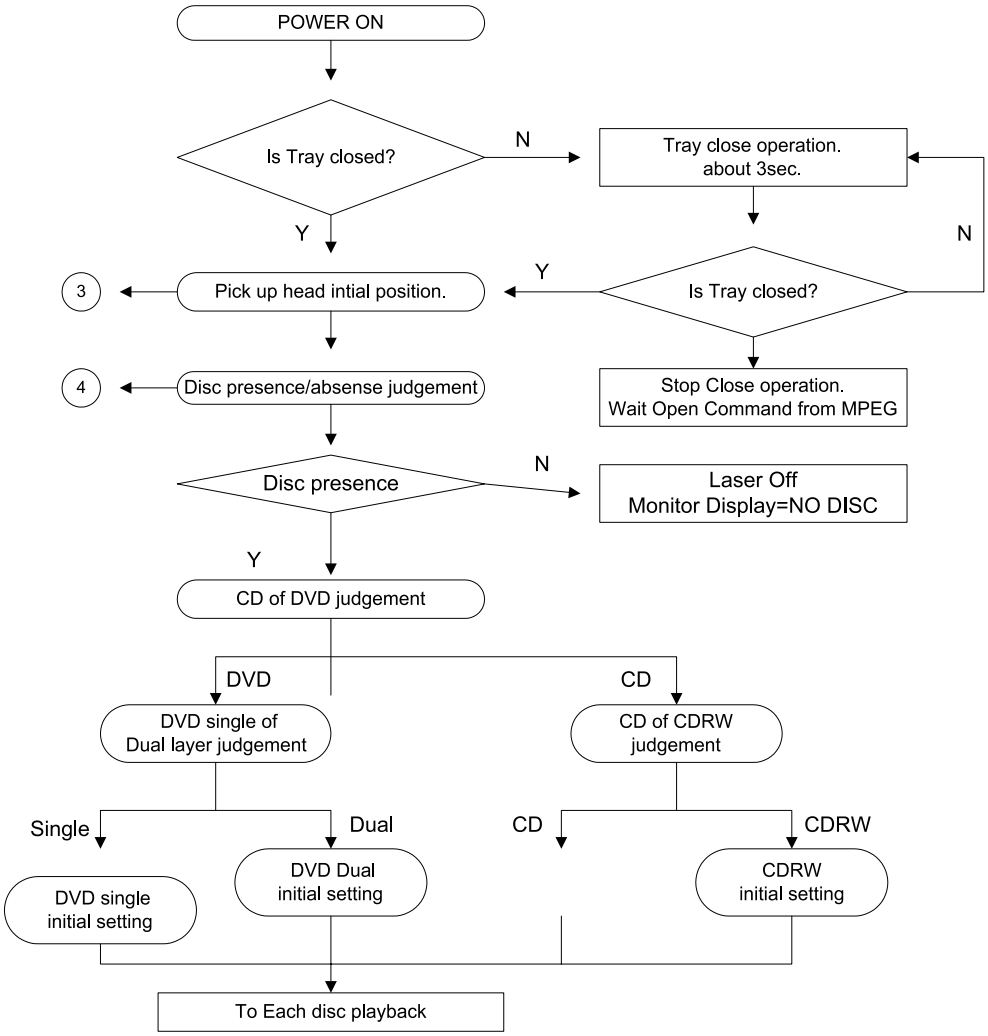
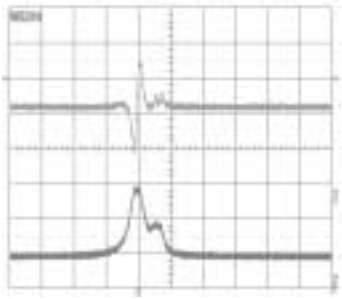


Fig. 1-1

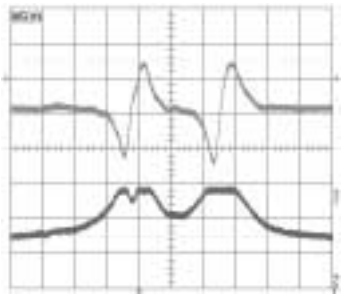
DVD single (single-layer) disc
Detetion waveform



V : 1V/div
H : 5ns/div

Fig. 1-2

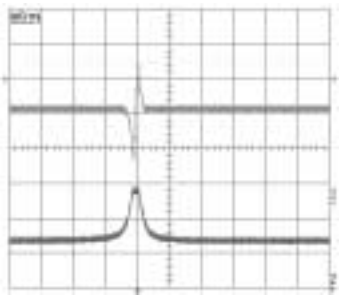
DVD dual (dual-layer) disc
Detetion waveform



V : 1V/div
H : 5ns/div

Fig. 1-3

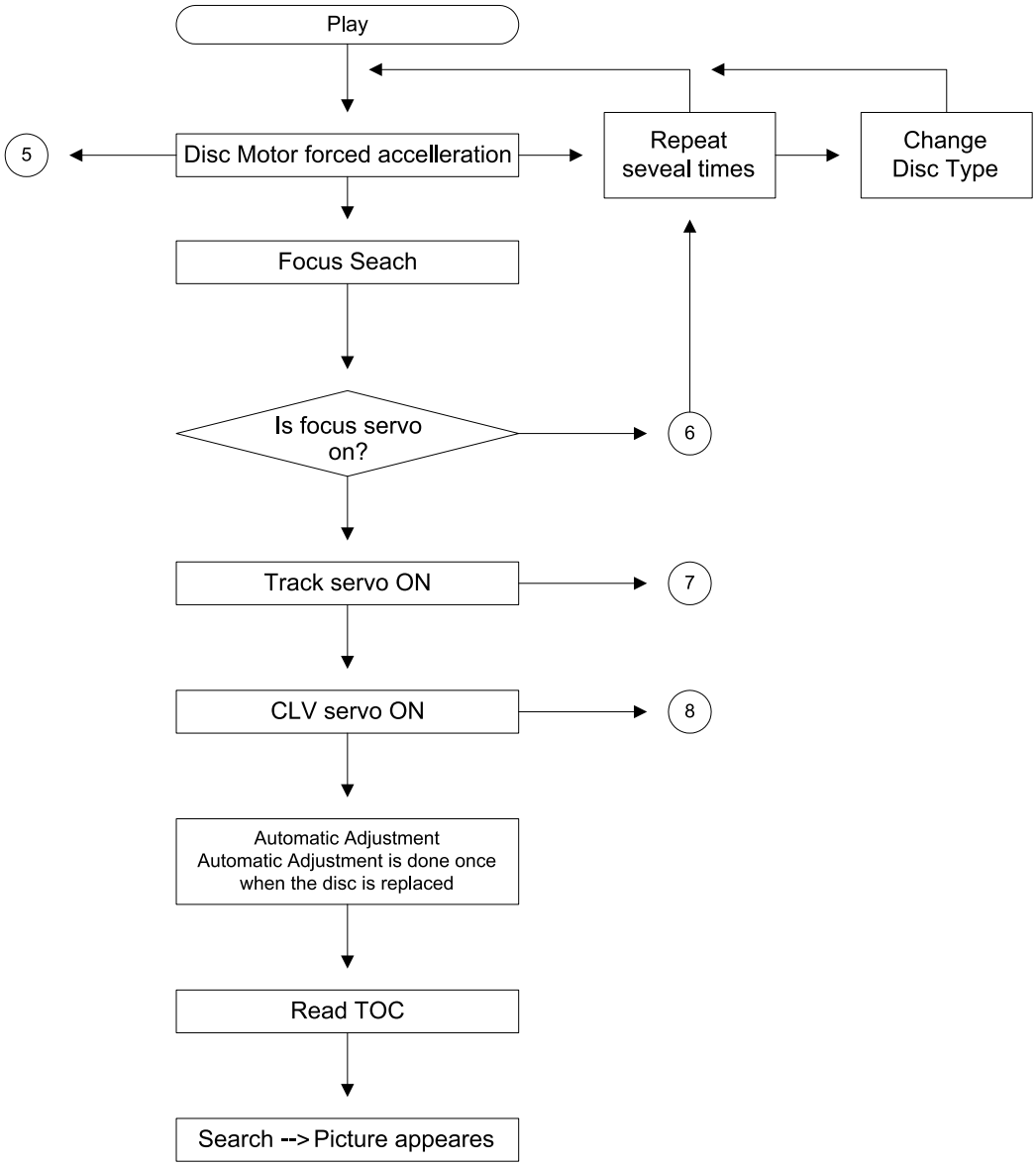
CD disc
Detetion waveform



V : 1V/div
H : 5ns/div

Fig. 1-4

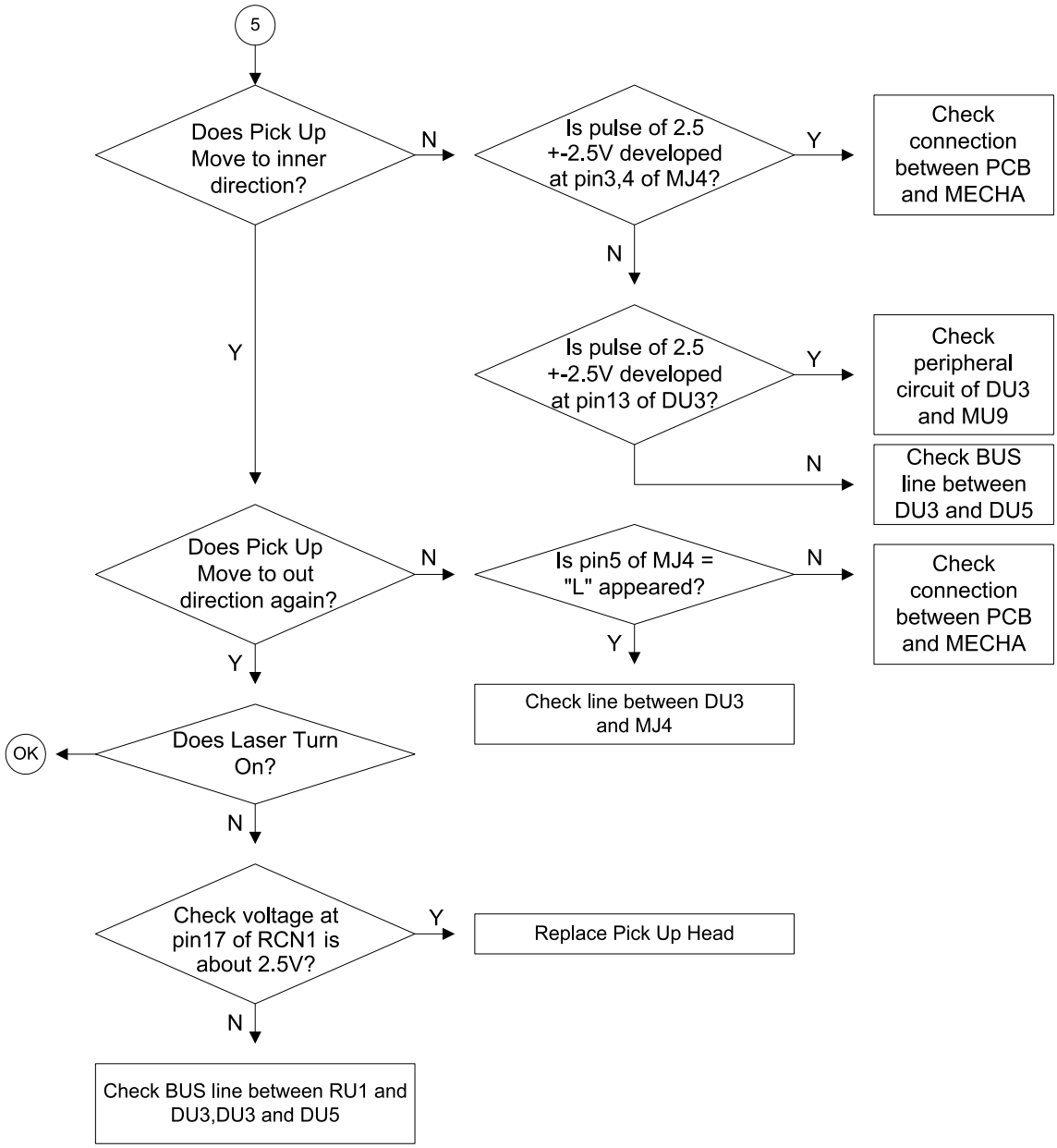
2. Play operation



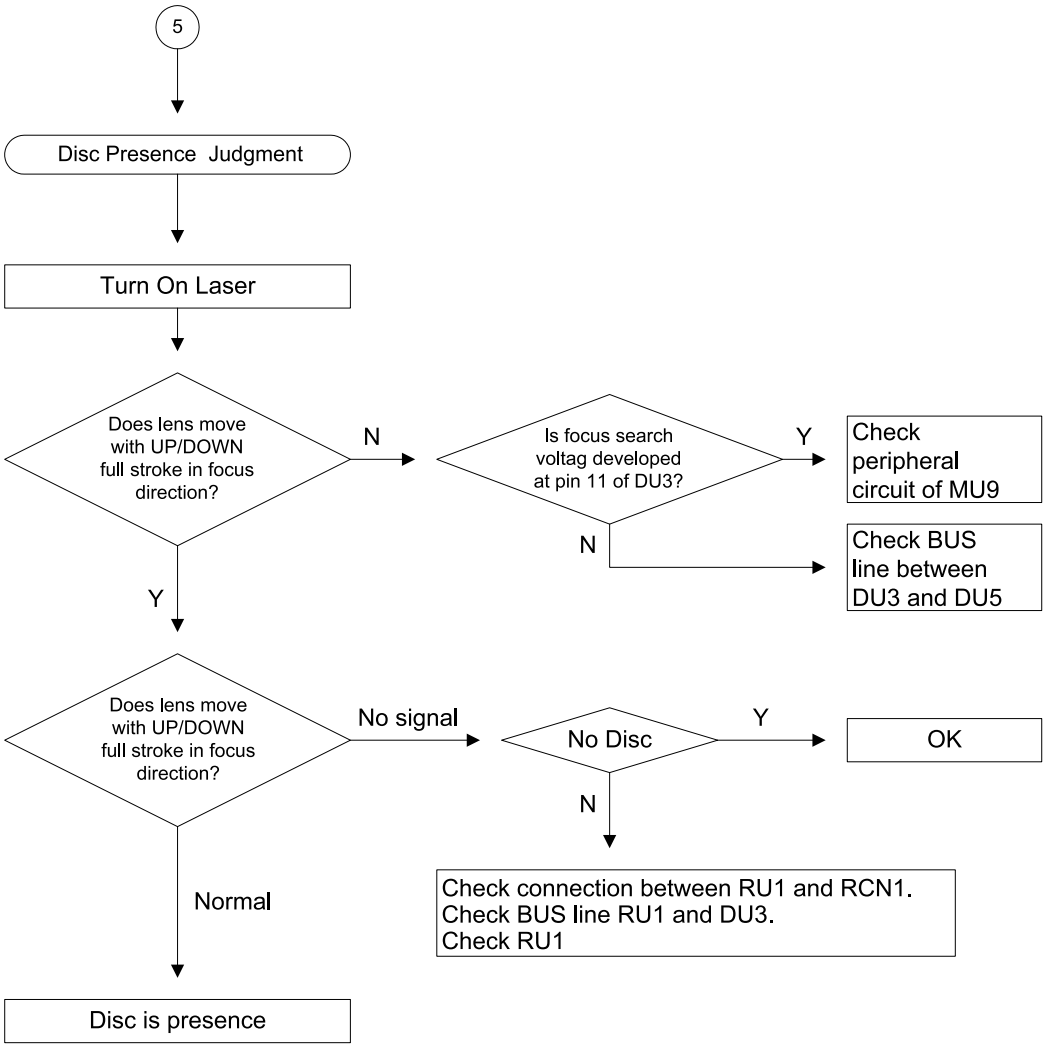
3. PickUp Head Initial Postion

PickUp Head Initial Postion

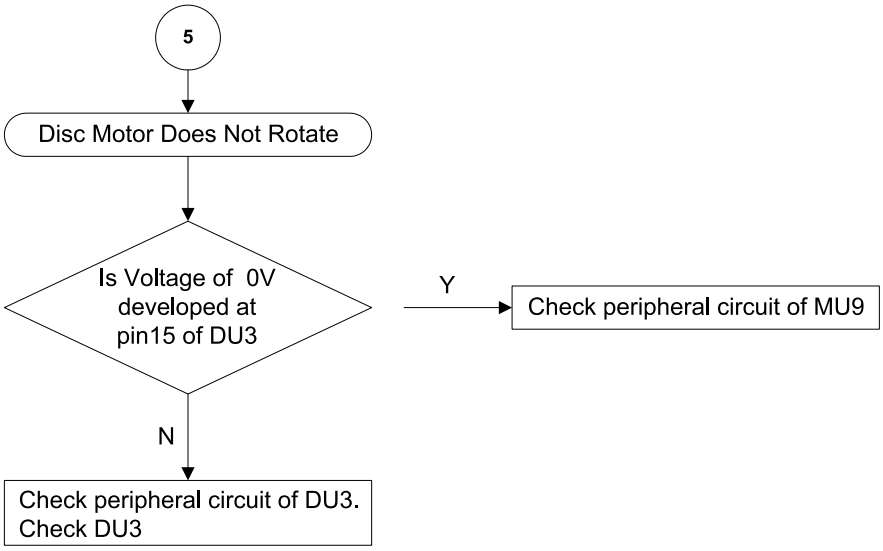
1. Move Pick Up Head to inner diretion until pin5 of MJ4="L"
2. If pin5 of MJ4="L", then move Pick Up Head to outer diretion for a short time.
3. Ture On the Laser of Pick Up Head to judge that disc is presence or not.


5
Does Pick Up Move to inner direction?
N
Is pulse of 2.5 +-2.5V developed at pin3,4 of MJ4?
Y
Check connection between PCB and MECHA
N
Y
Is pulse of 2.5 +-2.5V developed at pin13 of DU3?
Y
Check peripheral circuit of DU3 and MU9
N
Check BUS line between DU3 and DU5
Does Pick Up Move to out direction again?
N
Is pin5 of MJ4 = "L" appeared?
N
Check connection between PCB and MECHA
Y
Y
Check line between DU3 and MJ4
OK
Does Laser Turn On?
N
Check voltage at pin17 of RCN1 is about 2.5V?
Y
Replace Pick Up Head
N
Check BUS line between RU1 and DU3,DU3 and DU5

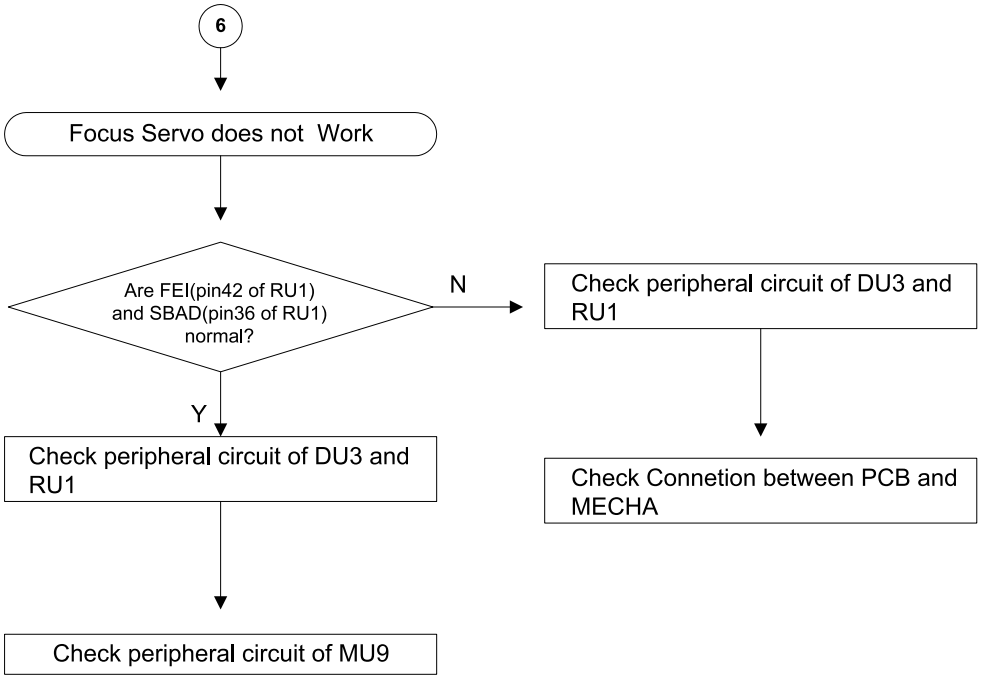
4. Disc Presence/Absense Judgment

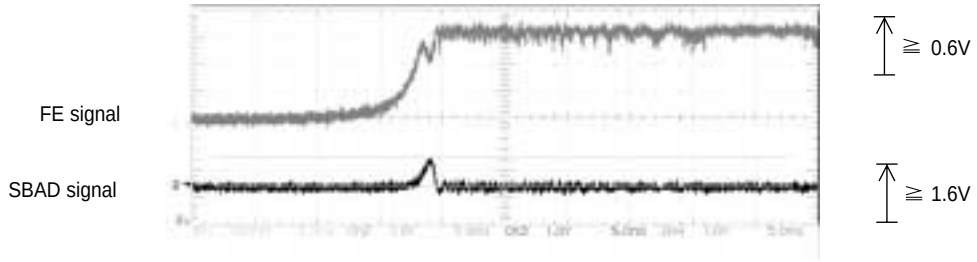


5. Disc Motor Does Not Rotate

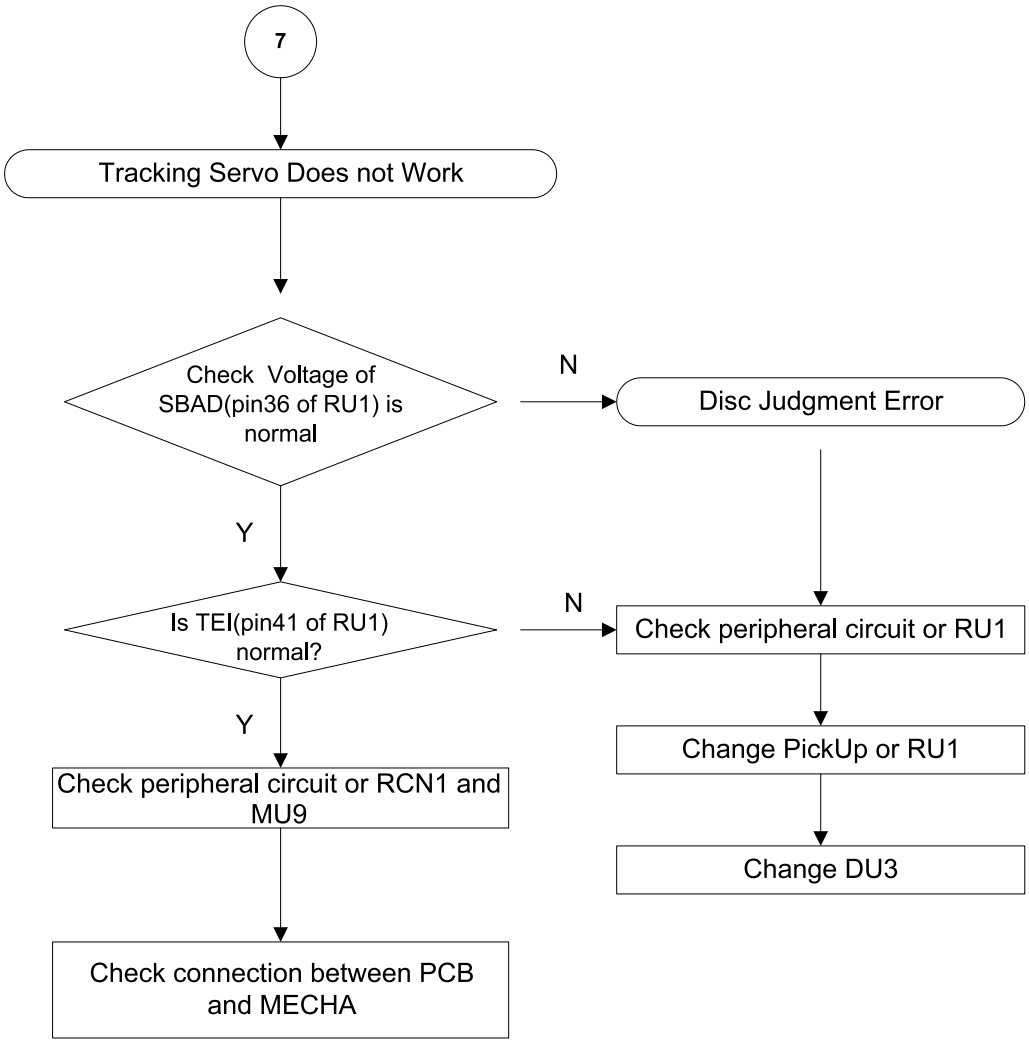

5
Disc Motor Does Not Rotate
Is Voltage of 0V developed at pin15 of DU3
Y
Check peripheral circuit of MU9
N
Check peripheral circuit of DU3. Check DU3

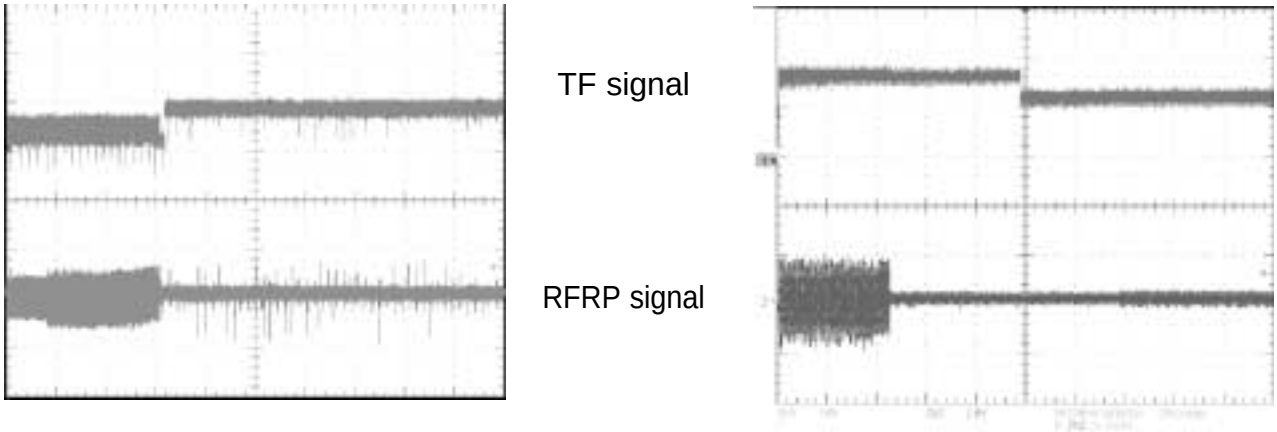
6. Focus Servo does not Work


6
Focus Servo does not Work
Are FEI(pin42 of RU1) and SBAD(pin36 of RU1) normal?
N
Check peripheral circuit of DU3 and RU1
Check Connetion between PCB and MECHA
Y
Check peripheral circuit of DU3 and RU1
Check peripheral circuit of MU9

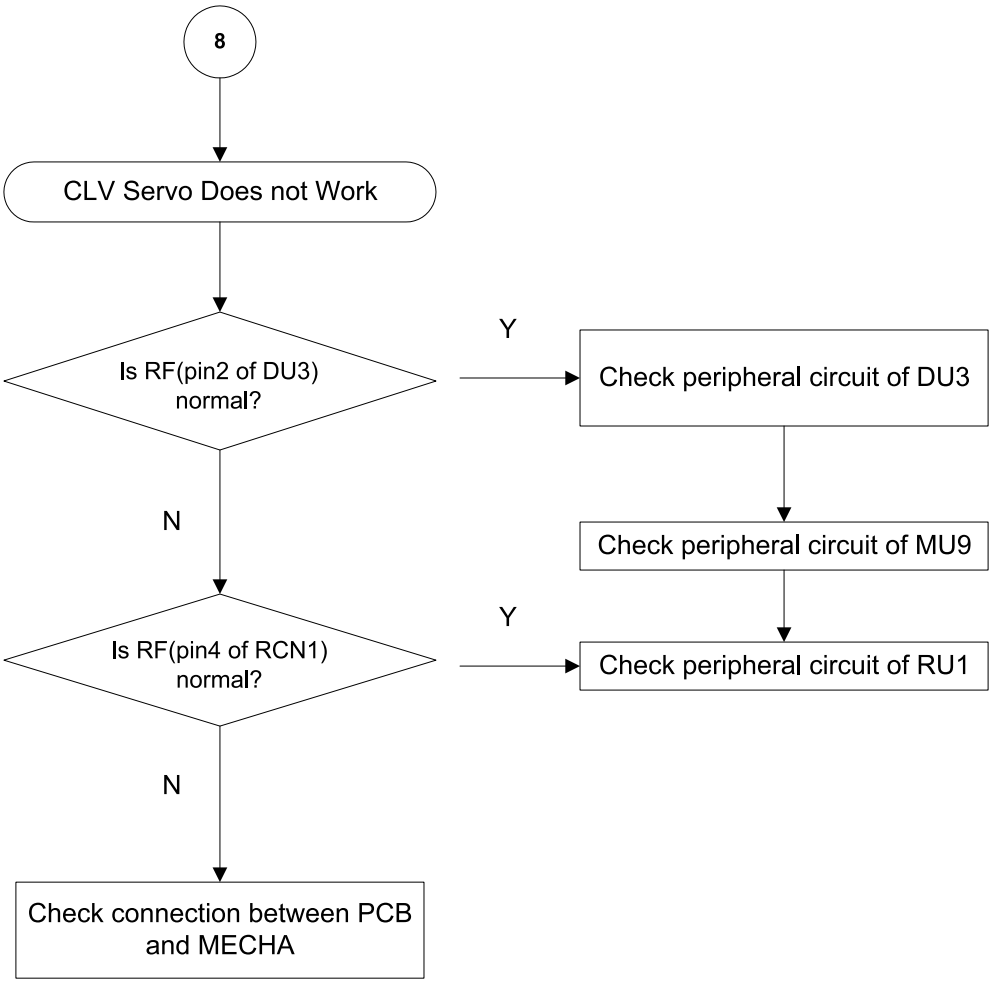


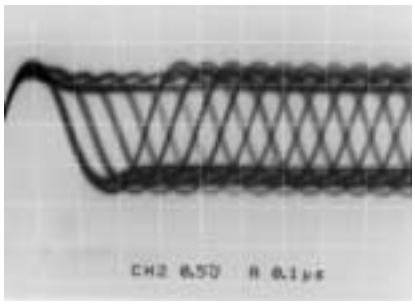
7. Tracking Servo Does Not Work



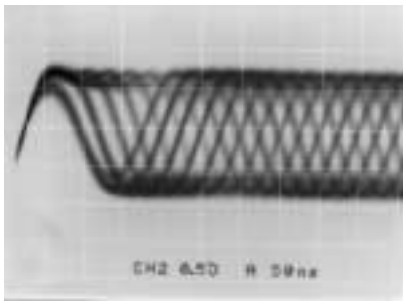


8. CLV Servo Does Not Work

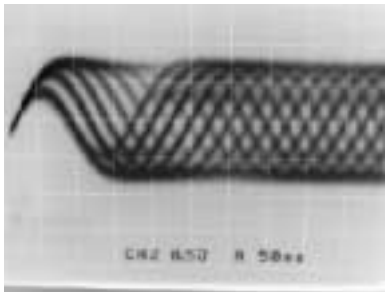




V : 500mV/div
H : 100ns/div

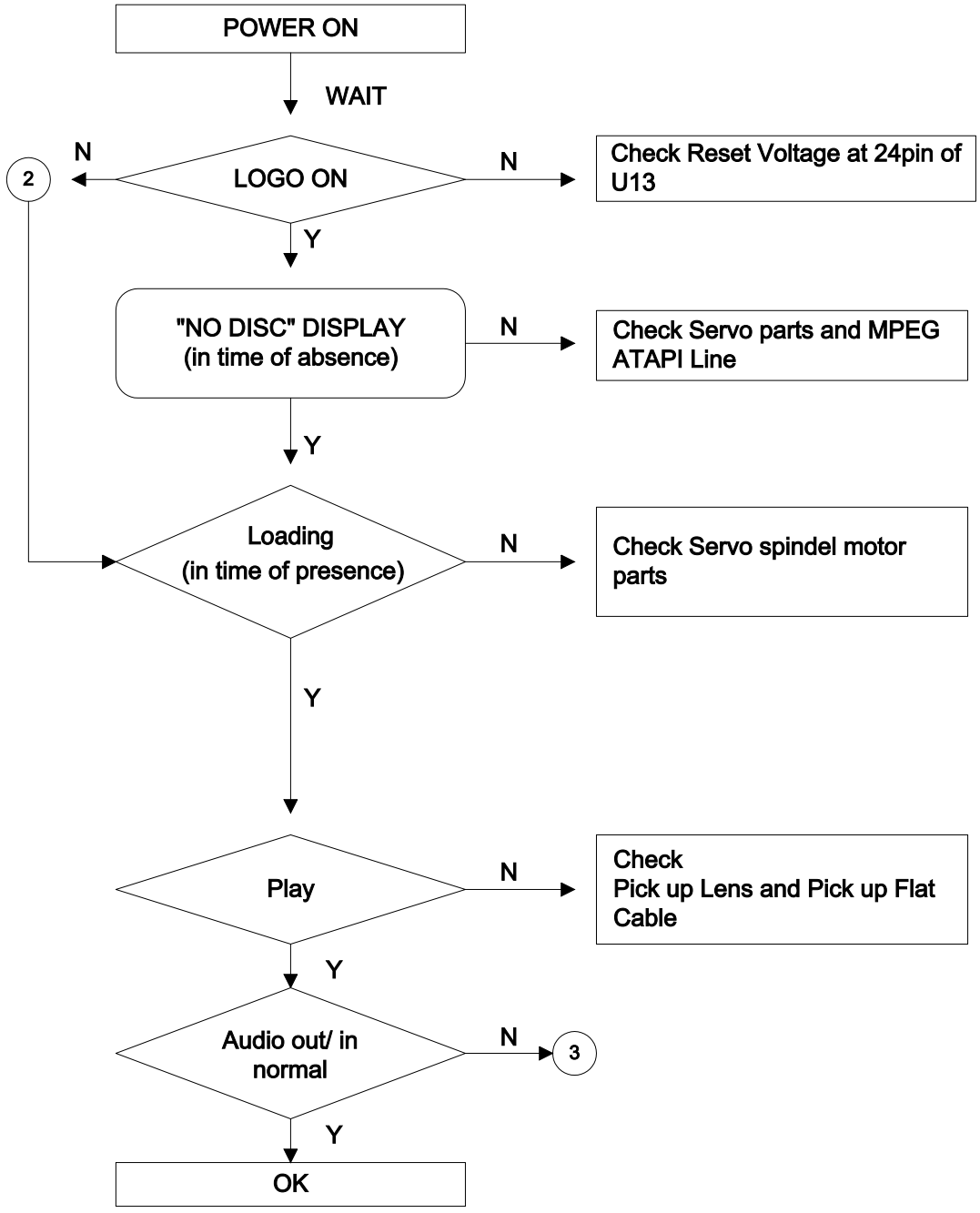


V : 500mV/div
H : 50ns/div

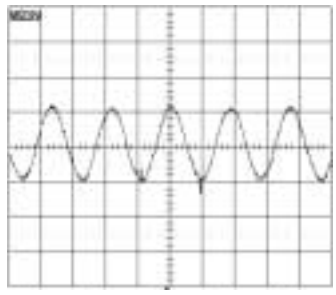


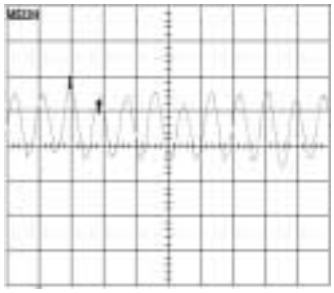
V : 500mV/div
H : 50ns/div

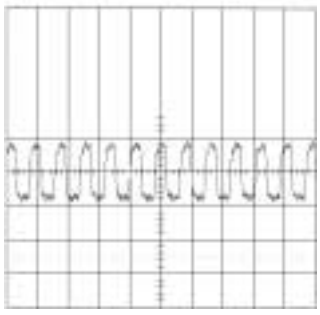
1. Initial operation after NO

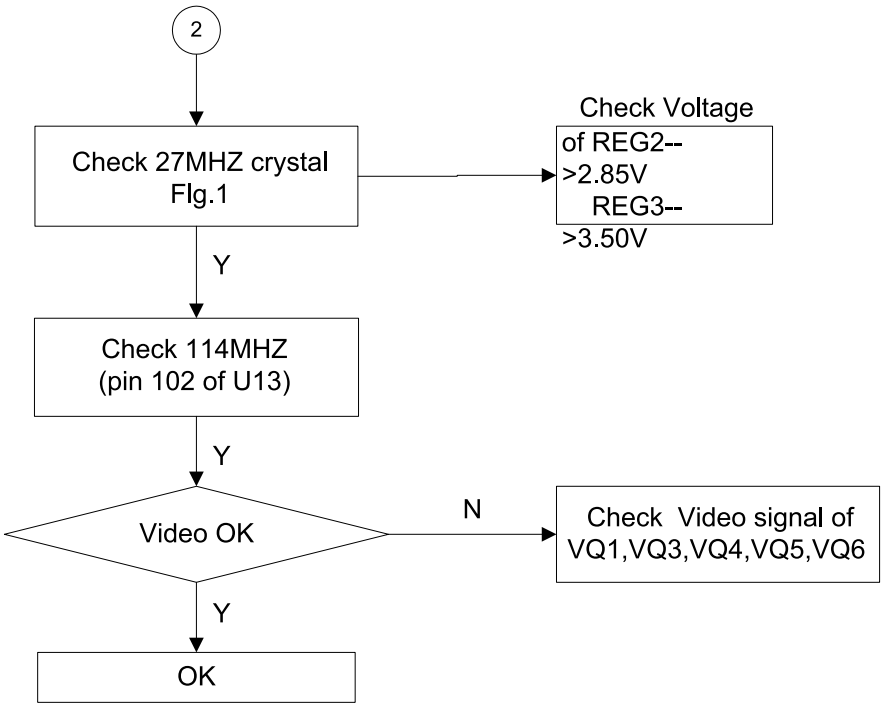


2. Logo operation

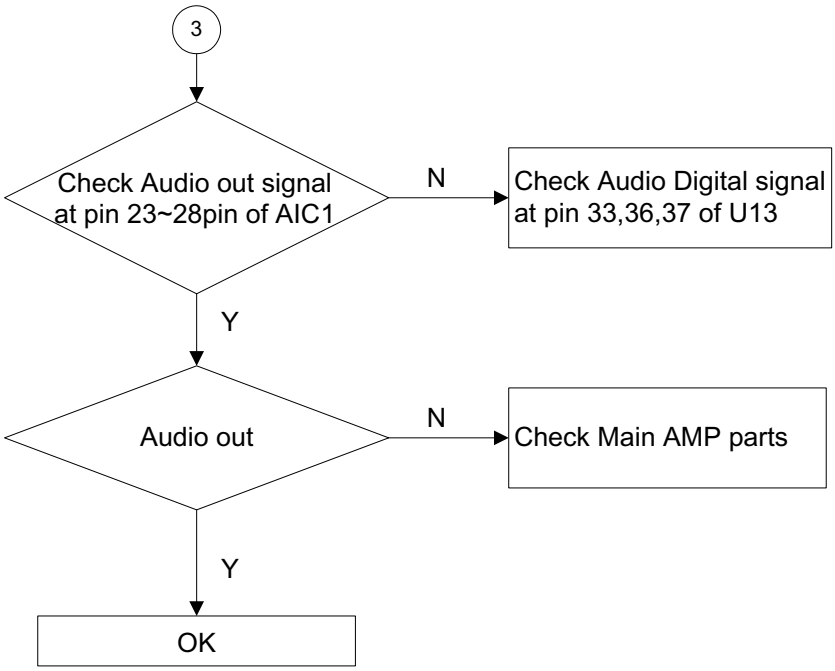
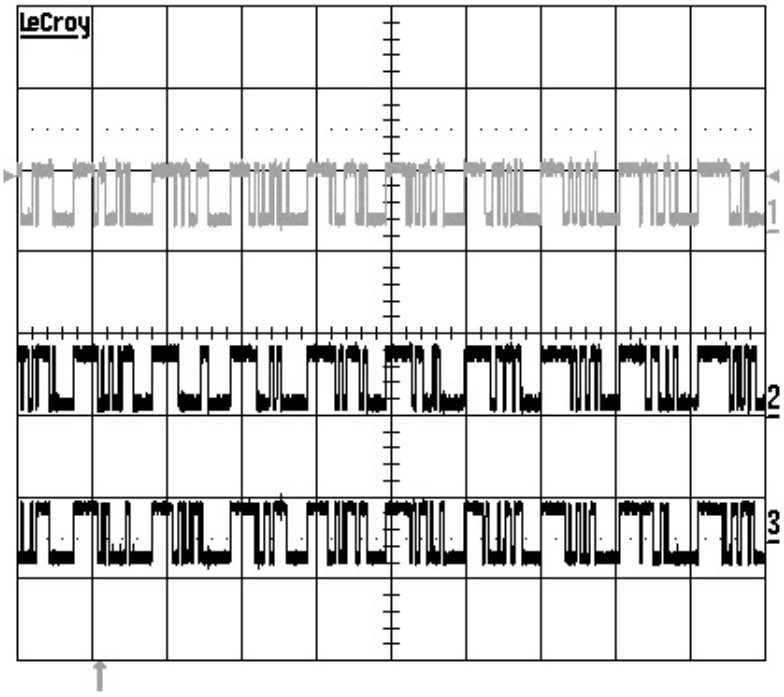








3.Audio operation



Audio Digital Signal